

REMARKS

Claims 1-16 stand rejected under 35 USC §112, second paragraph.

Claims 1-13 stand rejected under 35 USC §101. Claims 1-10 and 15-15 stands rejected under 35 USC §102(b) as being anticipated by Reed, U.S. patent 6,463,821.

Claims 1-7 and 14-16 have been amended to more clearly state the invention, to overcome the rejections under 35 USC §101 and under 35 USC §112, second paragraph, and to clearly distinguish the invention from the prior art references of record including Reed. Claims 8-13 have been cancelled.

Reconsideration and withdrawal of the rejection of claims 1-13 under 35 USC §101, and the rejections of claims 1-17 under 35 USC §112 is respectfully requested.

Reconsideration and allowance of the pending claims 1-7 and 14-16, as amended, is respectfully requested.

As amended, the pending claims 1-7 and 14-16 generally correspond to the allowed claims of the attached priority parent application, now EP 1 507 092 B1. The allowed claims are provided in English at columns 13-14.

Reed, U.S. patent 6,463,821 discloses a method of controlling a dual clutch transmission of a motor vehicle, wherein the first clutch acts to transmit torque to the first driven gear, and the second clutch acts to transmit torque to the second driven gear. The steps involved in controlling the transmission include determining a predetermined first clutch slip value based on the perceived vehicle loading, initiating launch of the motor vehicle with both the first and the second clutch partially engaged,

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determining the vehicle inertia value based on the summation of instantaneous vehicle inertia values during vehicle launch, and controlling either the first or the second clutch to disengage when the predetermined first clutch slip value is reached.

The present invention enables parallel transmission of an additional torque by way of a second transmission path presupposes that the torque M_{Mot} made available by the engine is compared to the currently prevailing upper limit which is admissible for the engaged gear and the mode of operation of the transmission. In the case of the stated upper limit being exceeded the excess proportion of the engine torque can then be diverted by way of the second transmission path. The upper limit of that diverted additional torque which is made available to the vehicle. The method provides protection for a twin-clutch transmission from a torque overloading insofar as, when required, an additional transmission path for the engine torque is afforded. Then, by means of the additional torque, the power capacity of the engine can be further utilized (generally up to its maximum) without the transmission having to be designed to be mechanically stronger and thus heavier and more costly. Better utilization of the engine power is appropriate in particular in the lower gears as they typically involve the lowest torque transmission capacity. The method therefore permits in particular a faster start and acceleration.

Applicants respectfully submit Reed does not anticipate the claimed invention of each of the independent claims 1, and 14, as amended. For prior art to anticipate under § 102 it has to meet every element of the claimed invention.

As amended, independent claim 1 recites method of controlling a twin-

clutch transmission (10), wherein torque is transmitted from a drive shaft (I) to an output shaft (O) via a first clutch (C1) and via a first transmission path (E2, Z8, Z9, S2, Z3, Z4), and with a second clutch C2) being at least partially closed in order to transmit an additional torque from the drive shaft (I) to the output shaft (O) via a second transmission path (E1, Z1, Z2, S1, Z3, Z4; E1, Z5, Z6, S3, Z7) when the torque transmitted by way of the first clutch (C1) reaches a predetermined upper limit; said method comprising the steps of: comparing torque (M_{Mot}) provided by the engine with a current permissible upper limit for a selected gear and an operating mode of the transmission, said current permissible upper limit being selected to ensure that the first transmission path is protected from a torque overload; and diverting an excess component of the torque (M_{Mot}) via the second transmission path responsive to said current permissible upper limit being exceeded.

As amended, independent claim 14 recites a controller for comparing torque (M_{Mot}) provided by the engine with a current permissible upper limit for a selected gear and an operating mode of the transmission, said current permissible upper limit being selected to ensure that the first transmission path is protected from a torque overload; and said controller for diverting an excess component of the torque (M_{Mot}) via the second transmission path responsive to said current permissible upper limit being exceeded.

Reed does not teach, disclose or suggest such steps or controller, as taught and claimed by Applicants, as now more clearly defined in each of the independent claims 1, and 14, as amended.

Reed does not teach, disclose or suggest the controller or performing the steps of comparing torque (M_{Mot}) provided by the engine with a current permissible upper limit for a selected gear and an operating mode of the transmission, said current permissible upper limit being selected to ensure that the first transmission path is protected from a torque overload; and diverting an excess component of the torque (M_{Mot}) via the second transmission path responsive to said current permissible upper limit being exceeded.

Thus, independent claims 1, and 14, as amended, is patentable.

Dependent claims 2-7 and 15-16, respectively depend from patentable claims 1, and 14 further defining the invention. Each of the dependent claims 2-7, and 15-16, as amended, is likewise patentable.

Applicants have reviewed all the art of record, and respectfully submit that the claimed invention is patentable over all the art of record, including the references not relied upon by the Examiner for the rejection of the pending claims.

It is believed that the present application is now in condition for allowance and allowance of each of the pending claims 1-7, and 14-16, as amended, is respectfully requested. Prompt and favorable reconsideration is respectfully requested.

If the Examiner upon considering this amendment should find that a telephone interview would be helpful in expediting allowance of the present application, the Examiner is respectfully urged to call the applicants' attorney at the number listed below.

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Respectfully submitted,

S-signature by

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